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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,032

03/31/2004

Chris Frank Howard

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EXAMINER

LY, ANH VU H

ART UNIT

PAPER NUMBER

2616

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,032	<b>Applicant(s)</b> HOWARD ET AL.	
	<b>Examiner</b> ANH-VU H. LY	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 24-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-29 is/are rejected.
- 7) ☒ Claim(s) 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>March 31, 2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 29 is objected to because of the following informalities:

With respect to claim 29, in line 2, replace “said one or more terminals” with --said terminals--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 24, 26, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Struhsaker et al (US Patent No. 6,668,174 B1). Hereinafter, referred to as Struhsaker.

With respect to claims 24, 26, and 28, Struhsaker discloses an authentication method (Fig. 12) for determining whether to provide communication services to each of a plurality of wireless terminals (Fig. 1, wireless terminals 106 and 108), comprising:

transmitting respectively to each of said terminals a unique signaling channel assignment signal, that indicates to that terminal a duplex signaling channel uniquely assigned to that terminal (col. 21, lines 62-64 and blocks 1506-1508, the subscriber switches to the Base Station Control Channel and listens for the slot assignment. Herein, the slot assignment is the signaling channel uniquely assigned to that subscriber and each slot will have different QoS such as slot

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quality and all slots may have different slot qualities as known in the art depending on slot characteristics. It should be understood that the slot assignment applies to all wireless subscribers as shown in Fig. 2, RU 204 and CPI 206. Even though only a subscriber is illustrated in Fig. 12);

transmitting to each of said terminals in said respective signaling channel a respective authentication request signal and receiving from each of said terminals in said respective signaling channel a respective authentication response signal, the contents of which are dependent on the contents of the authentication request signal (col. 21, lines 66-67 and Fig. 12, block 1512, bi-directional authentication messages are transferred which herein including request and response signals); and

determining whether to provide subsequent communication services to each of said terminals according to the contents of the authentication response signal received from that terminal (col. 21, line 67 and col. 22, line 6, if successful, the subscriber now begins normal operations such as incoming and outgoing call establishment, software download, and OAM&P functions).

With respect to claim 29, Struhsaker discloses allocating to each of said one or more terminals at least one service channel for carrying service communications, wherein the Quality of Service of said at least one service channel is independent of the Quality of Service of the respective control signaling channel (col. 21, line 67 and col. 22, line 6, if successful, the subscriber now begins normal operations such as incoming and outgoing call establishment, software download, and OAM&P functions. Herein, incoming and outgoing calls must be

established on traffic channels and these traffic channels will have different characteristics as compared to the assigned control slots).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Struhsaker in view of Persson et al (US Patent No. 5,778,316). Hereinafter, referred to as Struhsaker and Persson.

With respect to claims 25 and 27, Struhsaker discloses allocating slot assignment for authentication after successful completion of Subscriber Transmitter and Receiver Synchronization (col. 21, lines 56-58). Struhsaker does not disclose that each of unique signaling channel assignment signals is transmitted to a respective one of the terminals in response to a registration request signal received from that terminal on a contention-based access channel. Persson discloses sending a registration request message on a random access channel (Fig. 27a). Further, Persson discloses allocating a control channel after mobile stations registered (Fig. 38). It would have been obvious to one having ordinary skill in the art at the time the invention was made to allocate a control channel after registration has been successfully performed by mobile stations in Struhsaker's system, as suggested by Persson, for exclusively

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used of the control channel for carrying any further control information between the mobile stations and the base station immediately.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ketcham (US Patent No. 6,075,860) discloses apparatus and method for authentication and encryption of a remote terminal over a wireless link.

Brown et al (US Patent No. 5,689,563) discloses method and apparatus for efficient real-time authentication and encryption in a communication system.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH-VU H. LY whose telephone number is (571)272-3175.

The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Avl

/Anh-Vu H Ly/

Primary Examiner, Art Unit 2616